

**DETAILED ACTION**  
**EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.
2. Authorization for this examiner's amendment was given in a telephone interview with attorney Paul J. Esatto, Jr. (Reg. No. 30749) on 05/10/2011.
3. The application has been amended as follows:
  - Please cancel claims 22-25, 38-41, and 46-49.
  - In claim 1, line 23, after "encodes current" please delete **[m coefficient sets]** and insert -- **coefficient set** --.
  - In claim 1, line 24, after "extracts the next" please delete **[m coefficient sets belonging to the next m]** and insert -- **coefficient set belonging to the next** --.
  - In claim 4, line 26, after "encodes current" please delete **[m coefficient sets]** and insert -- **coefficient set** --.
  - In claim 4, line 27, after "extracts the next" please delete **[m coefficient sets belonging to the next m]** and insert -- **coefficient set belonging to the next** --.
  - In claim 50, line 9, after "operation" please delete **[every]** and insert -- **to each of** --.

- In claim 74, line 22, after “encodes current” please delete [**m coefficient sets**] and insert -- **coefficient set** --.
- In claim 74, line 22, after “extracts the next” please delete [**m**].
- In claim 74, line 23, after “coefficient” please delete [**sets belonging to the next m**] and insert -- **set belonging to the next** --.
- In claim 75, line 25, after “encodes current” please delete [**m coefficient sets**] and insert -- **coefficient set** --.
- In claim 75, line 25, after “extracts the next” please delete [**m**].
- In claim 75, line 26, after “coefficient” please delete [**sets belonging to the next m**] and insert -- **set belonging to the next** --.
- In claim 84, line 9, after “operation” please delete [**every**] and insert -- **to each of** --.
- In claim 85, line 26, after “encodes current” please delete [**m coefficient sets**] and insert -- **coefficient set** --.
- In claim 85, line 27, after “extracts the next” please delete [**m coefficient sets belonging to the next m**] and insert -- **coefficient set belonging to the next** --.
- In claim 85, line 36, after “operation” please delete [**every**] and insert -- **to each of** --.

End of amendment.

#### EXAMINER'S STATEMENT OF REASONS FOR ALLOWANCE

4. The following is an examiner's statement of reasons for allowance:

Independent claims 1, 4, 74, and 75 each recites an encoding process comprising: using wavelet transform to divide an image into a plurality of sub-band; extracting m sets of LH, HL, and HH coefficients in a scan line order, wherein each set corresponds to the same spatial coordinates of the same hierarchy sub-bands; encoding and concatenating coded coefficients to generate a code sequence from low frequency sub-band to high frequency sub-bands; and **wherein the encoding sequentially encodes current coefficient set at the same time before the coefficient extracting means extracts the next coefficient set belonging to the next spatial coordinates of the same hierarchy sub-bands in the scan line order** (which in effect reduces intermediate memory required).

Independent claims 50 and 84 are the corresponding decoding process that performs decoding operation to each of the m sets of coefficients and perform inverse wavelet transformation immediately after the current set of coefficients is decoded.

Claim 85 includes both the encoding and the decoding process.

Prior art of record fails to teach, or renders obvious, alone or in combination, all the independent claims which specifically comprise the above noted features in combination with other recited limitations.

Claims 1, 3-8, 50-54, 74, 75, 84, and 85 (now renumbered as 1-16 for issue) are allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Andrew; James Philip (US 6763139 B1): image coding method and apparatus for localized decoding at multiple resolutions.

Taubman; David S. (US 6778709 B1): embedded block coding with optimized truncation.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LI LIU whose telephone number is (571)270-5363. The examiner can normally be reached on Monday-Friday, 8:00AM-4:30PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Samir Ahmed can be reached on (571)272-7413. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LL

/Samir A. Ahmed/

Supervisory Patent Examiner, Art Unit 2624